[Second Edition.]

PATENT SPECIFICATION

Convention Date (France): March 19, 1928.

308,224

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Complete Accepted: June 5, 1930.

COMPLETE SPECIFICATION.

Improvements in and relating to Magnetic Insulating Materials.

We, THE BRITISH THOMSON-HOUSTON COMPANY, LIMITED, a British Company having its registered office at Crown House, Aldwych, London, W.C. 2 (Assignees of COMPAGNIE FRANCAISE POUR L'EXPLOITATION DES PROCEDES THOMSON-HOUSTON, of Boulevard Haussmann 173, Paris, France, a French Company) do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to modifications and improvements in insulating materials characterised by a high magnetic permeability, of the type described in our prior Patent Specification No. 261,816.

The object of the invention is to increase the mechanical resistance as well as the elasticity of the magnetic and insulating pieces which may constitute, in part or wholly, magnetic circuits, such as the cores of windings or transformers, the armatures or slot-wedges of electric machines, magnetic screens, etc.

According to this invention, homogeneous sheets of textile material are impregnated with a mixture of synthetic, or natural, resin and filings of magnetic metal or finely divided powder of said metal.

Said sheets piled up and compressed under heat or otherwise rendered solid provide a product possessing the necessary magnetic qualities of resistance and flexibility.

From boards thus produced, prisms can be cut to form shunts and slot-wedges, for instance, screens, etc. It is also possible to obtain all forms required by moulding said material.

Another process consists in rolling the sheet previously impregnated, as above indicated, upon itself and to then mould it under heat for the purpose of producing cores, prisms, etc.

It is self-evident that the process above mentioned may be modified without on that account departing from the scope of this invention. Thus it is possible to make articles of a desired shape by assembling in an appropriate manner the elements of impregnated fabric which have been given, by cutting out for instance, the most rational form; the impregnation may be carried out after the assemblage of the fabric; the magnetic materials can be incorporated with the resin by a process of precipitation or by electrolysis; unwoven textile material such as felt for instance, etc. may also be employed.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A material having magnetic and electrically insulating properties constituted by fibrous material impregnated with a mixture of a synthetic or a natural resin and a magnetic metal in a finely divided state and consolidated under pressure and heat.

2. A material having magnetic and electrically insulating properties constituted by a sheet of textile material impregnated with a mixture of a synthetic or a natural resin and a magnetic metal in a finely divided state and consolidated under pressure and heat.

3. A material having magnetic and electrically insulating properties constituted by layers of sheets of textile material impregnated with a mixture of a synthetic or a natural resin and a magnetic metal in a finely divided state and consolidated under pressure and heat.

4. A material having magnetic and electrically insulating properties constituted by a sheet of textile material impregnated with a mixture of a synthetic or a natural resin and a magnetic metal in a finely divided state, then rolled upon itself and finally consolidated under pressure and heat.

5. An article having magnetic and electrically insulating properties cut from a material as previously claimed.

6. An article having magnetic and electrically insulating properties moulded during the consolidation of the material, as previously claimed.

7. An article having magnetic and

[*Price* 1*s*.]

electrically insulating properties consolidated under pressure and heat from layers of pieces of a desired shape cut from textile material in sheet form impregnated with a mixture of a synthetic or natural resin and a magnetic metal in a finely divided state.

8. A slot-wedge magnetic shunt or the like article having magnetic and electrically insulating properties formed from a material substantially as described.

Dated this 18th day of March, 1929.

JOHN GRAY,
Crown House, Aldwych, London, W.C. 2,
Agent for the Applicants.

Reference has been directed in pursuance of Section 7, Sub-section 4, of the Patents and Designs Acts, 1907 to 1928, to Specification No. 261,816.

This reference is inserted as the result of a Provisional Report under Rule 29 of the Patents Rules, 1920.

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